

**IN THE SPECIFICATION:**

Please amend paragraph [0002] of the specification *as filed* as follows:

[0002] When opening the doors of a vehicle, there is always the danger of collision with stationary obstacles, which are not visible to vehicle occupants, or with moving objects, which approach the vehicle without being observed. To address this problem, environment sensor systems and driver safety systems are increasingly employed. These systems include distance warning, parking aids and backing up aids and total angle detection systems as well as separation sensors for indicating the distance of objects in the environment of the vehicle. The sensing of the environment of the vehicle occurs using ultra-sound sensors, near- and long-range radar, lidar, or ~~with~~ cameras with other adaptive optic sensors. A combination of multiple sensors may also be employed.

Please amend paragraph [0003] of the specification *as filed* as follows:

[0003] DE 102 61 622 A1 describes a process and a device for door collision warning in a motor vehicle. Objects are detected in the lateral rear area of the vehicle, the distance and speed of the objects is determined, and based on the object speed and the distance to the vehicle, a warning distance is calculated. As soon as the object distance becomes smaller than the warning distance which is a function of the object's speed, a warning signal is generated. In the case of rapidly moving objects, the warning signal is ~~already~~ initiated at greater distances than in the case of slowly approaching objects. A change in the speed or direction of the object is however not calculated.

Please amend paragraph [0004] of the specification *as filed* as follows:

[0004] DE 100 04 161 A1 discloses a door safety system, in which the opening of the vehicle door is blocked or released depending upon the vehicle environment situation as detected by sensors. If a stationary object is in the pivot area of the vehicle door, an acoustic warning is

emitted. If the monitoring devices associated with the door safety system detect that a moving object is approaching, a warning is emitted in the case that the object is in an area, in which the pivot area of the door defines at the same time a certain safety area. Accordingly, a stationary area of the vehicle is monitored.

Please amend paragraph [0005] of the specification *as filed* as follows:

[0005] A process and a device for recognition of danger is known from DE 10229033. Environment sensors detect objects in the detection area about the vehicle and produce therefrom ~~there from~~ spacing signals, from which, during movement of the vehicle distance to detected objects is determined. In the case of a stationary vehicle, it is determined from these spacing signals, whether a danger of collision exists between an opened door and an object. For this, both the position of the object as well as the speed are determined and from this the trajectory of the object is ascertained. If the trajectory falls within a minimum separation to the pivot area of the vehicle door, a warning signal is emitted. The minimum distance to the pivot area of the vehicle door is a static value. It must be larger than 0 in order to obtain a safety area.

Please amend paragraph [0008] of the specification *as filed* as follows:

[0008] The task is solved in accordance with the invention by a process according to the first patent claim and by a device for avoiding collisions during opening of vehicle doors as herein described ~~according to patent claim 10~~. Preferred embodiments of the invention are the subject to the dependent claims.

Please amend paragraph [0013] of the specification *as filed* as follows:

[0013] In accordance with the invention, a danger of collision can be determined, when ~~the overlap of~~ the probability space of the sensor areas of the vehicle doors overlaps with the probability space of the detected objects. The probability space is respectively the expected projected occupation space for the vehicle or, as the case may be, the pivot areas of the vehicle doors and for the objects at a certain point of time  $t_i$ . The extrapolation of the

movement path is carried out between the point in time  $t_0$ , which represents the present position of the object or, as the case may be, vehicle, and up to a certain extrapolation point  $t_x$ . Thereby a very precise prediction of a possible collision danger between a moving vehicle and a moving object is made possible.

Please amend paragraph [0014] of the specification *as filed* as follows:

[0014] If, for example, the curved track of approaching objects crosses the movement path of the moving vehicle, then a danger of collision exists, but only ~~then~~, when the intersection of the paths exists at the same time. The same applies with respect to the possible occupation spaces or, as the case may be, the time dependent probability space. No collision danger exists if an approaching object at the present point in time intersects only a future lying extrapolation point  $t_x$  probability of space occupancy of the doors.

Please amend paragraph [0019] of the specification *as filed* as follows:

[0019] For determining the probability space for the vehicle, for the pivot areas of the doors and for the objects, the boundary lines are transformed to the respective outer corner edges of the vehicle, the pivot area of the doors, or the objects. Thereby respectively the right boundary line is transmitted to the right corner of the vehicle and the left boundary curve to the left corner. The width for each possible point in time, a possible position of the object and the vehicle, or as the case may be the pivot area of the doors, is ~~is~~ indicated. In this manner, a probable total occupation space can also be determined, which extends over the entire extrapolation time.

Please amend paragraph [0025] of the specification *as filed* as follows:

[0025] The inventive process is preferably only carried out ~~then~~, when the vehicle speed is below a certain value, or when it is recognized ~~that~~ that a door is to be opened. A continuous sensing of the environment of the vehicle, and the determination and the extrapolation of movement paths, is not necessary.

Please amend paragraph [0029] of the specification *as filed* as follows:

[0029] The inventive device receives input from sensors present in the vehicle such as environment sensors and vehicle sensors. As warning means, loud speaker or warning lights could be considered, which likewise could pre-exist in the vehicle. The evaluation unit as well as the micro-processor are, as a rule ~~are~~, connected via a bus system with the environment sensors, that is, the ultra-sound sensors, radar sensors or infra-red sensors or cameras. Further, the sensors of the vehicle sensors are connected to the bus. Beyond this, further sensors can also be connected, for example, sensors that recognize the opening of a door. The micro-processor can also provide a further signal to the door locking unit, in order for example to prevent an opening of the door for at least a pre-determined period of time. Also, by the provision of a suitable signal, the angle of opening of the door can be limited.

Please amend paragraph [0038] of the specification *as filed* as follows:

[0038] In Fig. 1 an object 1 is shown at time  $t_0$ , which is moving in a straight line. From the movement of the object 1 a movement path 2 is determined and extrapolated to a pre-determined time  $t_x$ . Since the course of the movement path 2 is not certain between  $t_0$  and  $t_x$ , two movement probability curves 2a, 2b are formed with an angle, which brackets the movement path 2. The orthogonal distance of the movement curves 2a, 2b from the movement path 2 at time  $t_x$  is produced from a constant factor multiplied by the time  $t_x$ . Therewith, the boundary curves 2a, 2b and the orthogonal distance at time  $t_x$  describe an isosceles ~~a equilateral~~ triangle, of which the height is formed by the movement path 2.

Please amend paragraph [0039] of the specification *as filed* as follows:

[0039] The boundary curves 2a, 2b are then projected upon the end point of the object 1. In this manner, a total probability space 3' between time  $t_0$  and  $t_x$  is spanned. The total probability space 3' reflects for all points in time in the interval  $t_0$  through  $t_x$  the possibility and expected position of the object 1. Therewith possible occupation locations of the moving object 1 in the relevant time interval can be predicted. At a particular point in time  $t_1$  there is produced therewith the probability space 3 for the object 1.